

Exhibit 19

From: Doug Shaw <dvshaw54@comcast.net>
Sent: Tuesday, December 09, 2014 9:43 AM
To: Javier Cano
Subject: 2015 CBC cross list
Attachments: CBC CROSS list for ESA 2015.xls

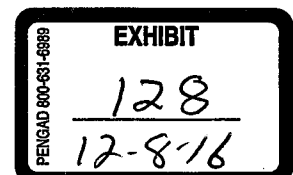
J:

Attached is a revised and corrected CBC cross list for 2015. I assigned the cultivar Amandine the number 109.10-1 so please modify your germplasm list with this identification. Also, I changed the cross numbers to eliminate the duplication of cross # 91. Note that this changes everything, so all prior copies of the cross list should be discarded.

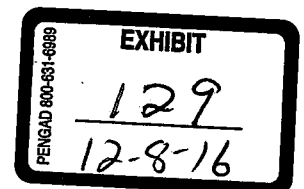
The file has crosses using the original cultivar names and CBC numbers. **Only the list with CBC numbers should be distributed within ESA.**

I am very sorry about the numbering error. Please thank David for finding it. I am getting too old for this job.

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Northern Elite Diallel 2015

	San Andreas	Camarillo	BG-4316	Sabrina	Benicia	Capri
Monterey	71	72	74	77	81	86
San Andreas		73	75	78	82	87
Camarillo			76	79	83	88
BG-4316				80	84	89
Sabrina					85	90
Benicia						91
Capri						

Northern Elite Diallel 2015

	101.4-1	102.1-1	102.2-1	103.1-1	104.1-1	104.7-1
101.3-1	71	72	74	77	81	86
101.4-1		73	75	78	82	87
102.1-1			76	79	83	88
102.2-1				80	84	89
103.1-1					85	90
104.1-1						91
104.7-1						

Northern Factorial I 2015

	Amandine	Fortuna	Splendor	Primoris	Mojave
Monterey	92	96	100	104	108
San Andreas	93	97	101	105	109
Benicia	94	98	102	106	110
Palomar	95	99	103	107	111

Northern Factorial I 2015

	109.10-1	101.1-1	101.2-1	103.2-1	104.3-1
101.3-1	92	96	100	104	108
101.4-1	93	97	101	105	109
104.1-1	94	98	102	106	110
100.1-2	95	99	103	107	111

Northern Factorial II 2015

	Merced	Petaluma	Grenada	Fronteras
Camarillo	112	118	124	130
BG-4316	113	119	125	131
Sabrina	114	120	126	132
Capri	115	121	127	133
Albion	116	122	128	134
Portola	117	123	129	135

Northern Factorial II 2015

	107.8-1	108.3-1	108.6-1	108.10-2
102.1-1	112	118	124	130
102.2-1	113	119	125	131
103.1-1	114	120	126	132
104.7-1	115	121	127	133
97.1-1	116	122	128	134
101.5-1	117	123	129	135

Other crosses

DN X DN
SD X SD
DN X SD

Redundant crosses

none

Crosses to SC

none

NC cross

Southern Elite Diallel 2015

	Primoris	Sahara	Merced	Petaluma	Grenada	Fronteras
Fortuna	1	2	4	7	11	16
Primoris		3	5	8	12	17
Sahara			6	9	13	18
Merced				10	14	19
Petaluma					15	20
Grenada						21
Fronteras						

Southern Factorial I 2015

	Festival	Amiga	Monterey	San Andrea	Nabila	Kamila
Merced	22	26	30	34	38	42
Petaluma	23	27	31	35	39	43
Grenada	24	28	32	36	40	44
Fronteras	25	29	33	37	41	45

Southern Factorial II 2015

	Palomar	Antilla	Benicia	Mojave	Viva Patricia
Fortuna	46	50	54	58	62
Sabrina	47	51	55	59	63
Primoris	48	52	56	60	64
Sahara	49	53	57	61	65

Other crosses

Southern Elite Diallel 2015

	103.2-1	105.5-1	107.8-1	108.3-1	108.6-1	108.10-2
101.1-1	1	2	4	7	11	16
103.2-1		3	5	8	12	17
105.5-1			6	9	13	18
107.8-1				10	14	19
108.3-1					15	20
108.6-1						21
108.10-2						

Southern Factorial I 2015

	95.1-1	98.1-1	101.3-1	101.4-1	103.4-1	104.6-1
107.8-1	22	26	30	34	38	42
108.3-1	23	27	31	35	39	43
108.6-1	24	28	32	36	40	44
108.10-2	25	29	33	37	41	45

Southern Factorial II 2015

	100.1-2	103.3-1	104.1-1	104.3-1	104.5-1
101.1-1	46	50	54	58	62
103.1-1	47	51	55	59	63
103.2-1	48	52	56	60	64
105.5-1	49	53	57	61	65